



JITC FY99 Test Support for the JECPO

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BRIEFING OUTLINE

- EC Test Support Objectives
- EC Spiral Test Process Approach
- EC Test Environment
- EC Test Process as Applied to EC Programs



EC TEST SUPPORT OBJECTIVES

- Represent JECPO as their independent tester
 - Provide
 - Personnel
 - Facilities
 - Test expertise
- Provide complete test support
 - Test program management
 - Development test oversight and assistance
 - System acceptance and operational test execution
- Affordable Confidence
 - Just enough testing to meet EC objectives and requirements

The end product is the operational capability NOT the test report



EC SPIRAL TEST APPROACH PURPOSE

Minimal redundancy/schedule

Scope based on cost/risk

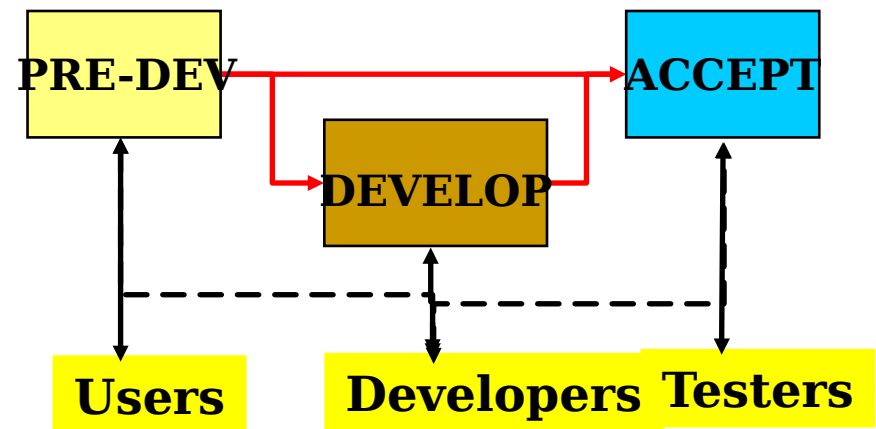
Streamlined test process to effectively address requirements, development, development (qualification) testing, acceptance and operational testing IAW ISO/IEEE 12207

Framework for developing/managing SW
Addresses whole spiral process
Supports current acquisition models



EC SPIRAL TEST PROCESS - TEST OVERVIEW

- Three phased test process
 - pre-development
 - development
 - acceptance
- Full participation of functional component users, developers, and testers throughout
 - **KEY** to risk mitigation
- Each phase builds on previous phase





EC SPIRAL TEST PROCESS - VALUE ADDED

- Only 2 formal test cycles

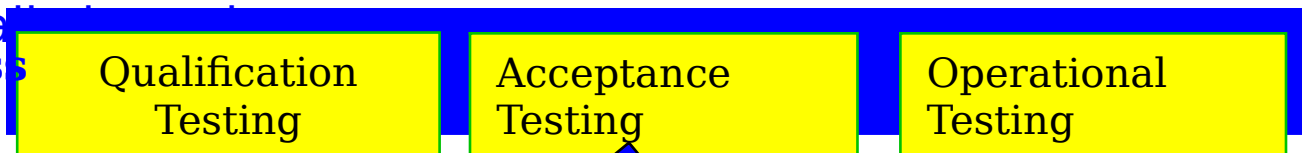
- Qualification testing

- By the developer
- Ensures valid input/output, internal integration, boundary conditions, etc
- Developer's lab environment (may need outside stimulation)

- Operational acceptance testing

- By independent tester on behalf of user
- External interfaces
- Operationally ready

Current Test Process



Developer

Government

New Test Process

Qualification Testing > System Acceptance/Operational Testing



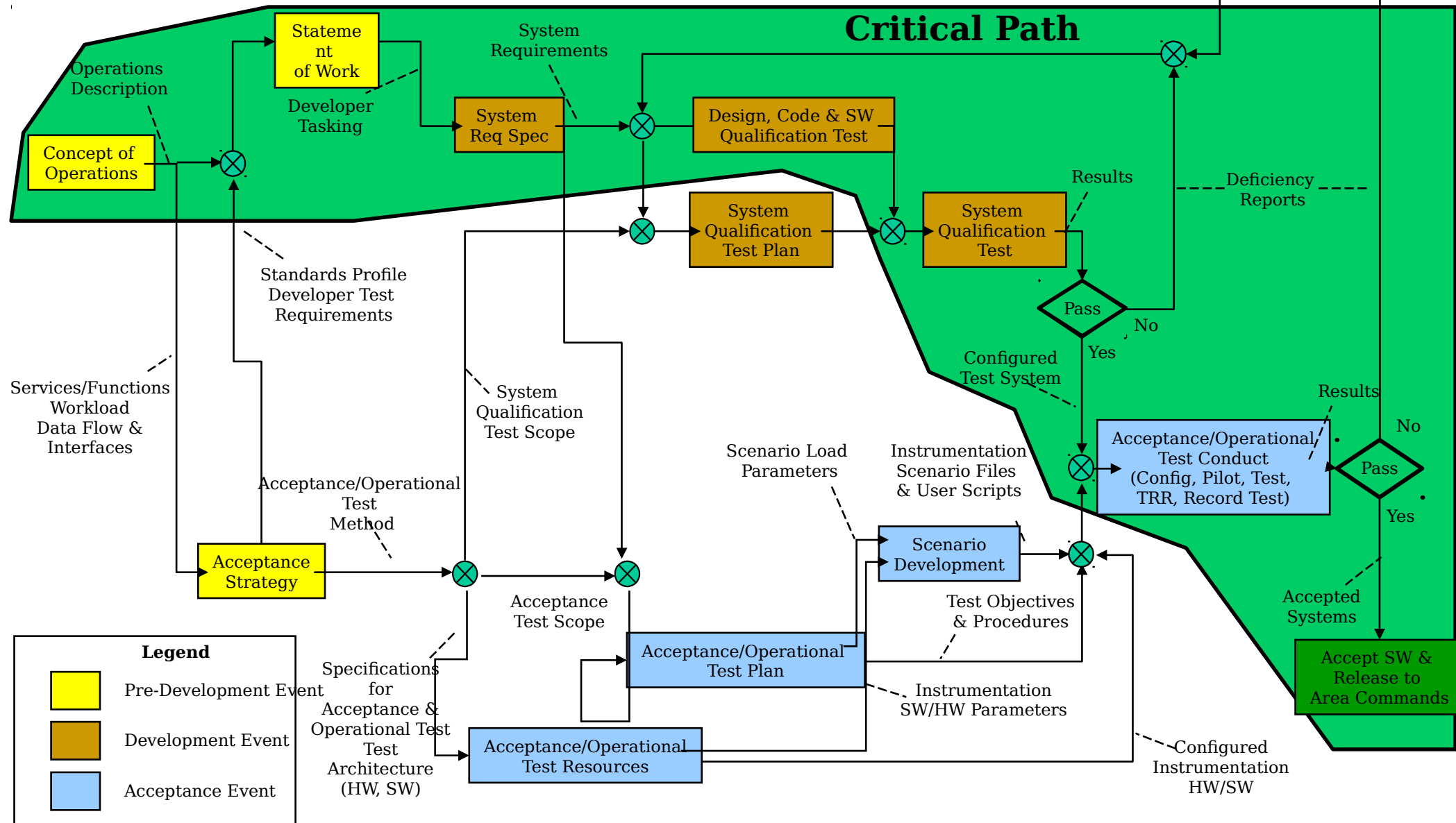
EC SPIRAL TEST PROCESS

ACTIVITY MATRIX

Phase	Pre-Development	Development		Acceptance
		Design	Develop	
Activity	Requirements Definition	Specify & Design	Code & Test	Accept System & Release for Operations
Documents	Concept of Operations Statement of Work Acceptance Strateg \	System Requirements Specifications Software Design Descriptions . . .	Software Qualification Test Plans & Reports System Qualification Test Plan & Report	System Acceptance & Operational Test Plan & Report



EC SPIRAL TEST PROCESS - DOCUMENT & EVENT FLOW





EC SPIRAL TEST PROCESS

MINIMAL CRITICAL PATH

KEYS

Critical Path

CONOPS

SOW

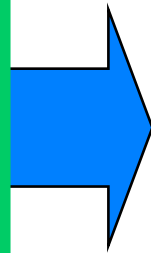
SRS

Code

Qualification

Test

Acceptance Test



- CONOPS/SOW done prior to spiral window
- CONOPS sync'd with EC operational view
- CONOPS/SOW concise and accurate
- Joint concurrence on (testable) requirements

Non-Critical Path

Acceptance Strategy

Qualification Test Plan/Prep

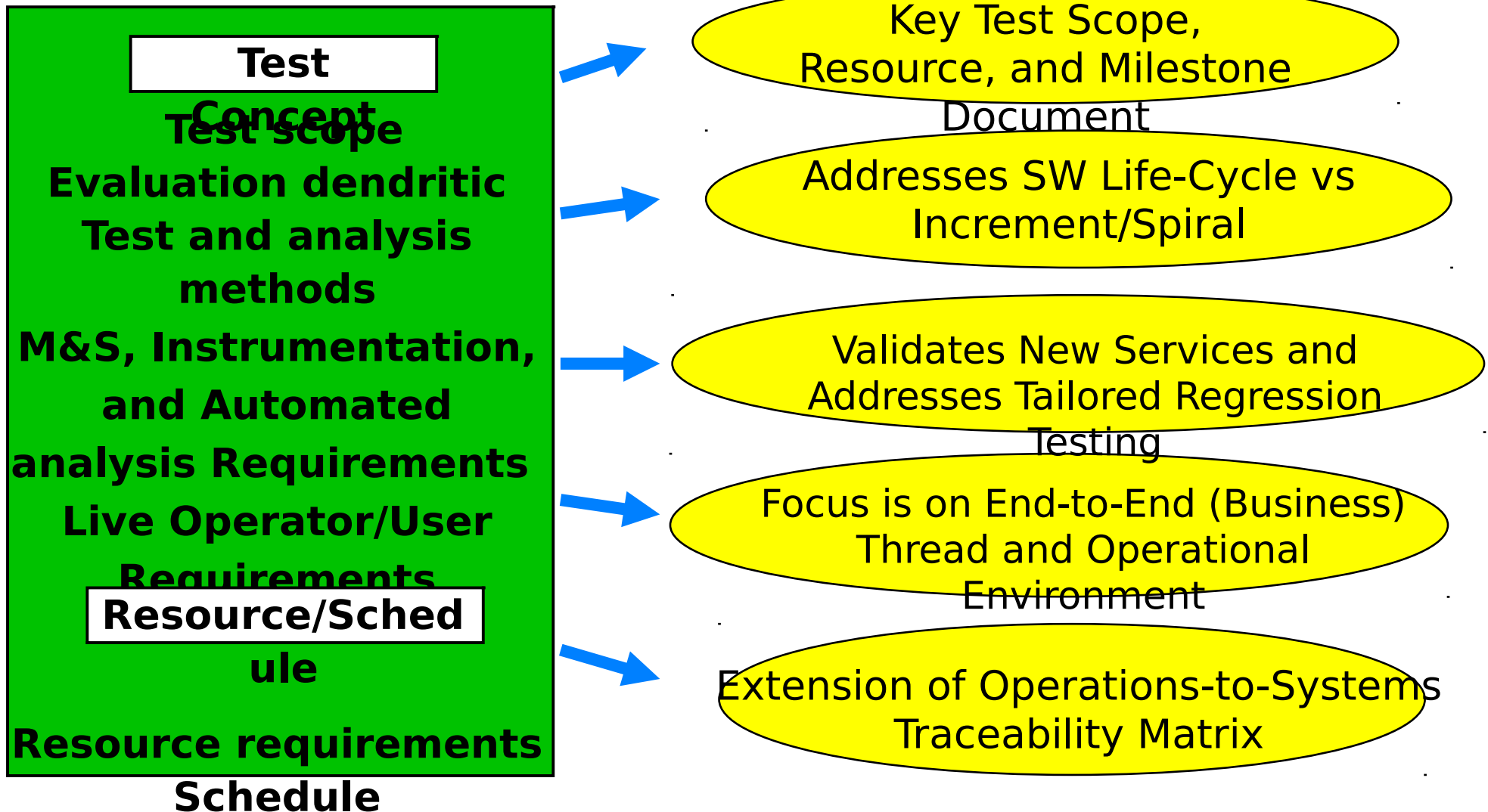
System Acceptance &

Operational Test Plan/Prep

- Define/coordinate test environment early
- Identify instrumentation and automated analysis requirements early
- Implement and integrate instrumentation concurrent to SUT development
- Scope, develop, and QC test scenarios concurrent to SUT development



EC SPIRAL TEST PROCESS - ACCEPTANCE STRATEGY



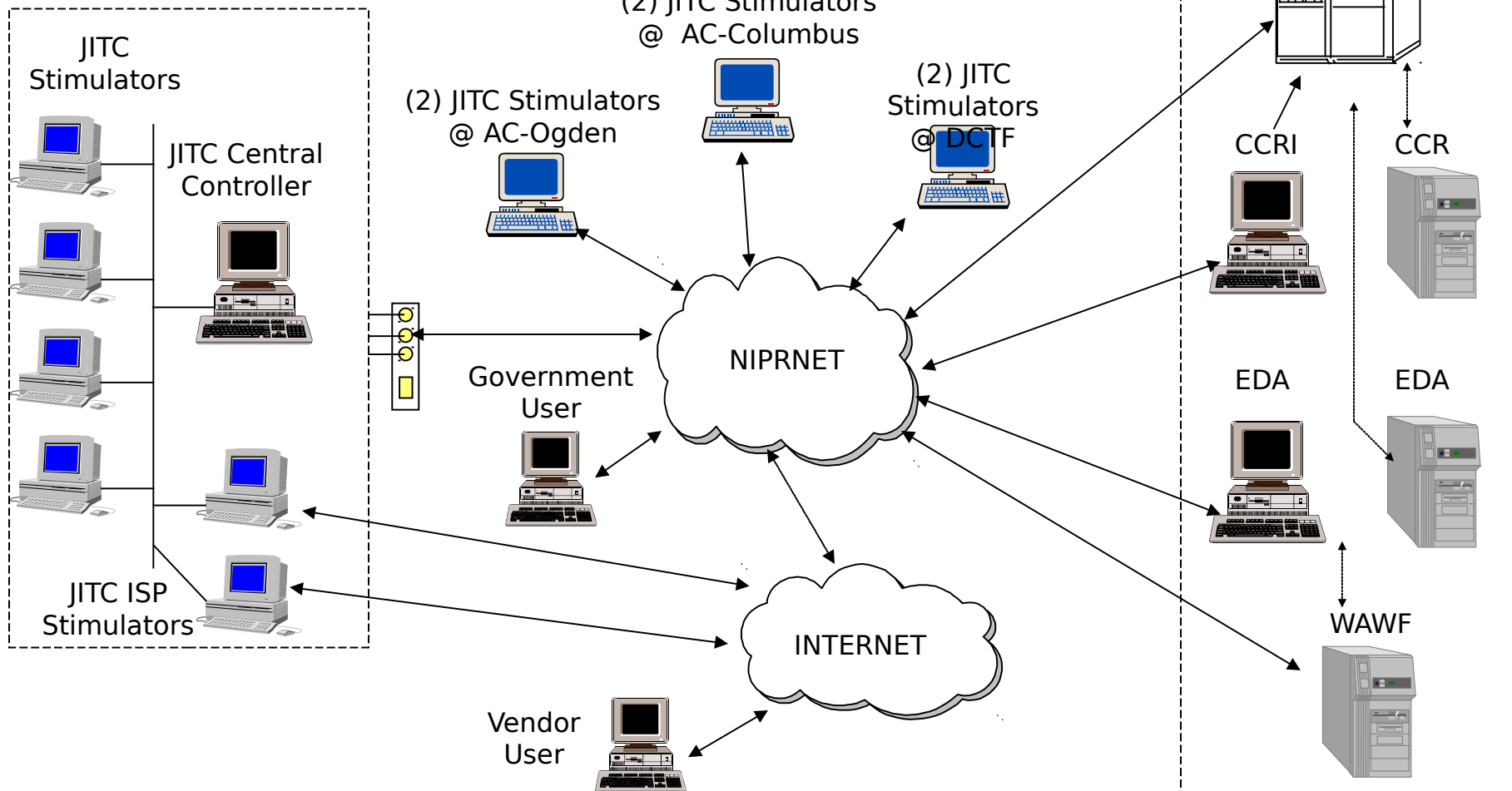


EC TEST ENVIRONMENT OVERVIEW

Future JITC Stimulator Locations

RSA-Jacksonville AC-Mechanicsburg
AC-Oklahoma City RSA-San Antonio

JITC TESTBED





SYSTEM QUALIFICATION & ACCEPTANCE/OPERATIONAL TESTING SUPPORT

- Performance (Load, stress, scalability)
 - X12 and UDF transactions
 - Web based including SSL
 - 100 % tracking
- Functional
 - Tailored test for new features
 - Live user input
 - Y2K assessment
- Operational
 - Realistic scenarios & Live data replay
 - WESTHEM, DLA users
 - End to End



JITC OVERALL ECI TEST SUPPORT

- Performance/Stress

- CCR
- ECPN
- EDA
- WAWF (Planned)
- DOD Bus Opps (Planned)
- Purchase Card (Planned)

- Functional

- CCR
- ECPN
- EDA
- WAWF (Planned)
- Purchase Card (Planned)

- DLA Past Test Support

- Automated Bidset Interface
- Electronic-Catalog (E-CAT)

- Operational

- ECPN
- EDA
- ECIP
- WAWF (Planned)
- DOD Bus Opps (Planned)
- CCR (Planned)

- Y2K

- CCR
- ECPN
- EDA
- WAWF (Planned)
- DOD Bus Opps (Planned)
- Purchase Card (Planned)



SUPPORT TO RELATED PROGRAMS

- WESTHEM Central Communication Office (CCO) Y2K
- GCCS Operation Assessment & Y2K (external interfaces)
- GTN - Y2K & Interoperability
- DTS Functionality & Y2K
- DFAS - JITC is OTA for 32 Programs
- PKI/ Information Assurance (Functional & Y2K)
- Logistics Y2K End-to-End (E2E)
- DLA Test Support
 - Automated Bidset Interface
 - Electronic-Catalog (E-CAT)
- Logistics EDI IPT Support Member



LOGISTICS END-TO-END (E2) SYSTEMS IN TESTS

Total Logistics (Non-TRANSCOM) =

Army	Navy	USAF	USMC	DLA
<ul style="list-style-type: none"> •CCSS •SAAS-MOD •SARSS •SDS 	<ul style="list-style-type: none"> •U2 •Tandem •UICP •CRAMSI •ITIMP •CAIMS •ROLMS •APADE 	<ul style="list-style-type: none"> •CAMS •CMOS •D035A •D035W 	<ul style="list-style-type: none"> •SCS •SASSY •ATLASS •SS04 •SS05 •CDDCS •ITIMP •SS06 •SS17 	<ul style="list-style-type: none"> •DAAS •Columbus MADS •Mechanicsburg MADS •DSS •DISMS •SAMMS •STORS(Mid-Tier) •STORS(PC) •INX •SPEDE

Total TRANSCOM = 38

USIC Systems	AMC	MSC	MPMC	OTHER
<ul style="list-style-type: none"> •GCCS (JOE)S •GTN •JFAST •LOGBOOK •AMP •DSN, DDN •SIPRNet 	<ul style="list-style-type: none"> •GDSS •ADANS •GATES •RCAPS •CAPS II •CAMPS •CMARPS •ACFP 	<ul style="list-style-type: none"> •C2IPS •Broker •CAMS/GO81 •AHS •AMCAM •CMOS •COINS 	<ul style="list-style-type: none"> •IC3 •CFM •ICODES •IBS •WPS •GOPAX •AALPS •AMS 	<ul style="list-style-type: none"> •DAAS* •DMS*** •DTTS* •JMCIS* •TCACCIS*

Intelligence
IDHS **

Medical
APES
DMRIS

* System used but not owned by USTC or TCC

** Confederation of several systems

*** Partnership agreement with DISA

Strike-through = used but not critical or no back-up